

ABSTRACT

[0106] A method and apparatus for delivering conditioned air using short duty cycles during which a damper is fully open for a time and fully closed for the remaining time. Conditioned air is continuously supplied to a plenum at low pressure and is applied to the space when the damper is open and blocked when the damper is closed. The proportion of on to off time during each duty cycle is adjusted to meet the load. When several supply terminals serve a space, their duty cycles are staggered to avoid fan instability. A special motor is coupled directly to the damper shaft for fast opening and closing of the damper. A magnetic latch holds the damper open or closed until the motor moves it again.